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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,050	11/04/2003	Jin-hwan Kim	Q78037	3115
23373	7590	05/31/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			TRUONG, BAO Q	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,050

Applicant(s)

KIM ET AL.

Examiner

Bao Q. Truong

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 15-19 and 21 is/are rejected.
- 7) ☒ Claim(s) 4-14, 20 and 22-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 26 of U.S. Patent No. 6,979,095. Although the conflicting claims are not identical, they are not patentably distinct from each other because see the table below:

Application claim	Patented claim	Remark
1	26	The refraction member is read on the means for refracting light; and the function "to reduce an azimuth angle of light that is incident upon the light guide panel" is inheritance since the means for refracting light is positioned between the point light source and the light guide panel.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Taniguchi et al. [US 6,700,634].

Regarding claim 21, Taniguchi et al. discloses a backlight unit having a light guide panel [2], a point light source [1], a refraction member [8] formed in the light guide panel [2] to refract light toward an optical axis of the light source [1] (figure 1, column 4 lines 43-50).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawayama in view of the applicant's admitted prior art.

Regarding claim 1, Sawayama discloses a backlight unit having a light guide panel [24], a light source [26] and a refraction member [81]; wherein, the refraction member is shaped to refract the light emitted from the point light source toward an optical axis of the point light source (figure 1). Sawayama does not disclose the point light source.

The applicant's admitted prior art of FIG. 1 shows point light sources [20].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the light source of Sawayama with the point light source as taught by the applicant's admitted prior art for purpose of providing an advantageous way of producing uniform and brightness illumination while consuming less electrical energy and releasing less heat.

Regarding claim 2, Sawayama discloses a V-shaped prism [81] (figure 21).

Regarding claim 3, Sawayama discloses the apexes being formed by an angle between 80-120 degrees (figure 1).

Regarding claim 15-17, Sawayama discloses the refraction member [81] being discrete elements, united with the light guide panel [24], and having a hollow portion therebetween caused by frame [27] (figure 1).

Regarding claim 18, Itoh et al. discloses a light guide panel [1], but does not disclose the hologram pattern being formed on the light guide panel.

The applicant's admitted prior art of FIG. 2 shows a hologram pattern [30] formed on a light guide panel [10].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the light guide panel of Itoh et al. with the hologram pattern as taught by the applicant's admitted prior art to emit light at high efficiency for purpose of providing a uniform brightness to a light guide panel.

Regarding claim 19, Sawayama discloses a scattering pattern being formed on the light guide panel (figure 11(a)).

Allowable Subject Matter

8. Claims 4-14, 20 and 22-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 4, the refraction member further comprises a transparent member wherein the prism array is attached to the transparent member on a side adjacent the light guiding plate.

Claims 5 and 9, the refraction member further comprises a transparent portion arranged along the optical axis of the light source; and the transparent portion is shaped to prevent light emitted from the light source from being totally reflected.

Claims 6-8 are dependent on claim 5.

Claims 10-14 and 20 are dependent on claim 9.

Claim 22, the refraction member comprises a hollow portion extending in a direction parallel to a light emitting surface of the light guide panel and a prism array of V-shaped having apexes arranged on an edge of the hollow portion and extending into the hollow portion.

Claims 23-28 are dependent on claim 22.

Response to Arguments

9. Applicant's arguments filed 17 April 2006 have been fully considered but they are not persuasive.

Claim 1, the applicant recites Sawayama fails to identify "a backlight unit" as claimed instead of a front light illumination device. However, Sawayama discloses the device (see figure 1) being a backlight unit. The light unit [50 and 53] is positioned at the back of the liquid crystal cell [10] (see column 1 lines 25-28). The applicant recites Sawayama fails to disclose a point light source. However, the applicant's admitted prior

art of FIG. 1 shows the point light source. The applicant recites Sawayama fails to disclose the refraction member is shaped to refract the light toward an optical axis of the point light source. Sawayama discloses the refraction member [81] being shaped to refract the light toward an optical of the light source (figure 4).

Claim 21, the applicant recites Taniguchi fails to disclose the refraction member being formed in the light guide panel. However, Taniguchi discloses the refraction member [8] being formed in the light guide panel [2] (figure 10). The applicant has explained that the refraction member [8] being formed on the surface of the light guide plate [2]. This is not quite persuasive since the refraction member [8] has its thickness below the surface of the light guide plate [2]. Moreover, the refraction member [8] is shaped to refract light [20] toward an optical axis of the point light source [1] (figure 10).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Q. Truong whose telephone number is (571) 272-2383. The examiner can normally be reached on Monday-Friday (8:00 AM - 4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 2875

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Bao Q. Truong
Examiner
Art Unit 2875



Sandra O'Shea
Supervisory Patent Examiner
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